

REMARKS

Claims 1, 2, 4-9, and 11-22 are pending in this application. By this Amendment, claims 1 and 9 are amended and claims 3 and 10 are canceled without prejudice to or disclaimer of the subject matter found therein. Claim 1 is amended to incorporate the subject matter of claim 3. Claim 9 is amended to incorporate the subject matter of claim 10. No new matter is added.

Entry of the amendments is proper under 37 C.F.R. §1.116 because the amendments: (a) place the application in condition for allowance for the reasons discussed herein; (b) do not raise any new issue requiring further search and/or consideration since the amendments amplify issues previously discussed throughout prosecution; and (c) place the application in better form for appeal, should an appeal be necessary. Entry of the amendments is thus respectfully requested.

Applicant appreciates the courtesy shown to Applicant's Representative by Examiner Walsh and Supervisory Examiner Gray in the March 9, 2006, personal interview. Applicant's separate record of the substance of the interview is incorporated into the following remarks.

Claims 9, 10, 15, 17, and 19 are rejected under 35 U.S.C. 103(a) over U.S. Patent No. 6,064,847 to Iwamatsu et al. (Iwamatsu) in view of U.S. Patent No. 4,930,438 to Demizu et al. (Demizu); claims 1-3, 8, 16, 18, and 20 are rejected under 35 U.S.C. 103(a) over Iwamatsu in view of U.S. Patent No. 5,495,322 to Wada et al. (Wada) and in further view of Demizu; claims 4-7 are rejected under 35 U.S.C. 103(a) in view Iwamatsu, Wada, and Demizu and in further view of U.S. Patent No. 5,809,386 to Iwata; claims 11-14 are rejected under 35 U.S.C. 103(a) over Iwamatsu in view Demizu and further in view of Iwata; and claims 21-22 are rejected under 35 U.S.C. 103(a) over Iwamatsu in view Wada. The rejections are respectfully traversed for at least the following reasons.

As agreed at the interview, none of the applied references either individually or in combination thereof disclose or suggest that a bias is applied to the removing member and the developer-carrying member so as to attract the electrically-charged nonmagnetic single-component developer from the developer-carrying member to the removing member, as recited in independent claims 1, 9, 16, and 17.

During the interview Applicant's Representative discussed the differences between Applicant's claimed subject matter and the applied references. In particular, as described by Iwamatsu, a bias voltage V_d for eliminating and removing a static charge from the toner is supplied to the reset member 44 from the power-supply circuit 14 (col. 9, lines 15-22; Fig. 1 of Iwamatsu). However, the bias voltage V_d of Iwamatsu is supplied to reset member 44 to eliminate and remove the static charge from the toner. Thus, as agreed at the interview, the bias voltage V_d of Iwamatsu is not applied to between the removing member and the developer-carrying member so as to attract the electrically-charged nonmagnetic single-component developer from the developer-carrying member to the removing member.

As to Demizu, as discussed at the interview, a bias voltage is applied to the discharging brush 10 to remove undesired charge from the developing sleeve 1 (Figs 1 and 10 of Demizu). As discussed at the interview, the discharging brush 10 is similar to the reset member 44 of Iwamatsu in that Demizu's discharging brush 10 removes the static charge from the residual developer (i.e., toner). Demizu also uses a scrape off roller 20 to scrape the developing sleeve 1 to remove the residual developer from the developing sleeve 1 (col. 11, lines 35-59; Fig. 10 of Demizu). The scrape off roller 20 performs the scrapping operation only after the electrostatic attractive force is discharged from the discharging brush 10 (col. 11, lines 33-59). Although Demizu does describe that the scrape off roller 20 could have an electrically conductive outer peripheral surface, which is electrically connected to a bias voltage source similarly with the discharging brush 10 (col. 12, lines 2-8), Demizu explicitly

states the scrape off roller 20 functions as a discharging unit for removing undesired charge from the developing sleeve 1, in which case the discharging brush 10 is omitted (col. 12, lines 2-8). Accordingly, even if the discharging brush 10 was replaced with the scrape off roller 20, the scrape off roller 20 performs the same function as the discharging brush 10, which is to discharge the electrostatic attractive force from the residual developer. Further, the developer supplying roller 5 is not biased (Fig. 10).

It was asserted during the interview that there may be some charged residual developer left after the remaining charge removing operation of the discharging brush 10 (col. 11, lines 41-47 of Demizu). But, as Demizu describes, the discharging brush 10 is electrically connected to the bias voltage source 11 so that its potential is maintained at the same level as that of the electrically conductive support 1c of the developing sleeve 1 (col. 7, lines 5-13). Accordingly, any charged residual developer that may be left after the discharging operation from the discharging brush 10 would remain on the developing sleeve 1 and not the scrape off roller 20, individually or in combination with the discharging brush 10.

Thus, as agreed at the interview, the bias voltage V_d that is applied to the discharging brush 10 is not applied to the removing member and the developer-carrying member so as to attract the electrically-charged nonmagnetic single-component developer from the developer-carrying member to the removing member.

Because none of the applied references individually or in combination thereof disclose or suggest the subject matter of claims 1, 9, 16, and 17, the references cannot render obvious the subject matter of claims 2, 4-8, and 18 depending from claim 1, the subject matter of claims 11-15 and 19 depending from claim 9, and the subject matter of claim 20 depending from 16, for the reasons discussed with respect to claims 1, 9, 16, and 17 and for the additional features recited therein. Thus, it is respectfully requested that the rejections of

claims 1, 2, 4-9, and 11-20 be withdrawn. The rejection of claims 3 and 10 are rendered moot by the cancellation of these claims.

With respect to the rejection of independent claims 21 and 22, as the Office Action admits, Iwamatsu does not teach the removing member is positioned upstream of the supply member and upstream of the thickness-regulating member in the rotational direction of the developer-carrying member and the thickness-regulating member is positioned below the developer-carrying member, as recited in claims 21 and 22.

Wada fails to overcome the deficiencies of Iwamatsu as applied to claims 21 and 22.

In Wada, the alleged thickness-regulating member (second toner removal member 11; Fig. 1 of Wada) is not a thickness-regulating member, but instead, is a second toner removal member (Fig. 1 of Wada). Also, the second toner removal member 11 is positioned below the charge transfer roller 2, not the developer-carrying member (i.e., developing roller 3; see Fig. 1 of Wada). Further, the thickness-regulating member describe by Wada is the charged layer regulating blade 5, which regulates the amount of toner deposited on the charge transfer roller 2 (col. 9, lines 10-16). As clearly shown in Fig. 1 of Wada, the charged layer regulating blade 5 is not positioned below the developer-carrying member.

Thus, the alleged combination of Iwamatsu and Wada fails to disclose or suggest the removing member is positioned upstream of the supply member and upstream of the thickness-regulating member in the rotational direction of the developer-carrying member, and the thickness-regulating member is positioned below the developer-carrying member, as recited in claims 21 and 22.

For at least these reasons, Applicants respectfully submit that Iwamatsu, alone or in combination with Wada fails to disclose or suggest all the features of claims 21 and 22. It is respectfully requested that the rejections be withdrawn.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of all pending claims are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



James A. Oliff
Registration No. 27,075

Kurt P. Goudy
Registration No. 52,954

JAO:KPG/tbm

Date: March 15, 2006

OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

<p>DEPOSIT ACCOUNT USE AUTHORIZATION Please grant any extension necessary for entry; Charge any fee due to our Deposit Account No. 15-0461</p>
--